

A.2.9 PLANETARY ATMOSPHERES

1. Scope of Program

The Planetary Atmospheres program supports scientific investigations that contribute to the understanding of the origins and evolution of the atmospheres of planets and their satellites, and of comets. Its broad objectives include the determination of compositions, dynamics, and chemical behaviors of planetary atmospheres. Investigations that may be submitted to this program are those that seek to study the sources and mechanisms for deposition of energy; the characterization and understanding of dynamical processes and relationships between currently observed properties and/or states of matter; and the chemical abundance, physical conditions, and processes that may have prevailed at the time the planets were formed. The scope of the Planetary Atmospheres activity also includes laboratory investigations that supply basic physical measurements that are currently needed to interpret planetary data, including measurements and calculations of spectroscopic, optical, and thermodynamic properties of materials found in planetary atmospheres. Note that characterization of the atmospheres of extrasolar planets also is included within the scope of the Planetary Atmospheres activity, although searches for extrasolar planets are not. In addition, while comparative studies of various planet atmospheres (including the Earth) are appropriate, investigations that focus *primarily* upon the Earth's atmosphere are not. Proposals for the analysis of data from NASA missions that return significant amounts of data and that are in the public domain (including data from the Galileo, Mars Pathfinder, and Mars Global Surveyor missions and available on PDS node) are encouraged.

In all cases, a Planetary Atmospheres investigation should propose to attack a specific problem of the highest intrinsic scientific value as well as of interest to NASA's objectives in its Solar System Exploration science theme. Proposals that serve as an umbrella for a variety of research tasks are not appropriate if the proposed tasks are without a clear focus.

2. Programmatic Information

Proposals are sought for new projects that fall within the scope of the Planetary Atmospheres program. Presently, about \$8M is budgeted for this program in fiscal year 2003 for which this NRA solicits proposals, and approximately 100 investigations will be supported by these funds. Investigations may be proposed for a one-, two-, or three-year period of performance. Since proposals are generally written for a three-year period of performance, approximately a third of the budgeted total for the program is competed each year. Thus, approximately 30–35 new proposals will be selected through this NRA.

IMPORTANT INFORMATION

As discussed in the *Summary of Solicitation* of this NRA, the Office of Space Science (OSS) is now using a single, unified set of instructions for the submission of proposals. This material is contained in the document entitled *NASA Guidebook for Proposers Responding to NASA Research Announcement – 2001* (or *NASA Guidebook for Proposers* for short) that is accessible by opening URL <http://research.hq.nasa.gov>, and linking through the menu item "Helpful References," or may be directly accessed online at URL <http://www.hq.nasa.gov/office/procurement/nraguidebook/>. This NRA's Summary of Solicitation also contains the schedule and instructions for the electronic submission of a *Notice of Intent* (NOI) to propose and a proposal's *Cover Page/Proposal Summary*, which now also includes the required *Budget Summary*, and the mailing address for the submission of a proposal.

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